

CLAIMS

What is claimed is:

Sub
Q37

1. A printing system, comprising:
 - 5 a web guide having
 - a preprinting section which guides a substrate into the printing system;
 - a postprinting section which maintains tension in the substrate as the substrate moves through the printing system; and
 - 10 a printing section positioned between the preprinting section and the postprinting section, the printing section including a removable platen to provide a gap in the printing section to prevent excess ink which is deposited onto the substrate from accumulating underneath the substrate.
2. The system of claim 1, wherein the preprinting section has a substantially flat surface over which the substrate moves.
- 15 3. The system of claim 2, wherein the preprinting section is heated to condition the substrate.
4. The system of claim 3, wherein the preprinting section includes heating elements to heat the substrate.
5. The system of claim 1, wherein the platen section is heated to dry off solvents in the ink.
- 20 6. The system of claim 5, wherein the platen section includes heating elements to heat the substrate.

Sub
A3
cont

The system of claim 1, wherein the postprinting section has a convex curved surface over which the substrate moves.

8. The system of claim 1, wherein the postprinting section is heated to dry off solvents in the ink.

5 9. The system of claim 8, wherein the postprinting section includes heating elements to heat the substrate.

10. The system of claim 1, wherein the printing section is connected to a vacuum source which generates a suction on the substrate.

11. The system of claim 10, wherein the platen and the preprinting section define a first slot, and the platen and the postprinting section define a second slot, the first slot and the second slot being in fluid communication with the vacuum source, the suction on the substrate being generated through the first and second slots.

10 12. The system of claim 1, wherein the printing section includes a trough and the excess ink falls into a trough when the platen is removed.

15 13. The system of claim 12, further including a drain located at the bottom of the trough for draining the excess ink.

14. The system of claim 12, further including an absorber located at the bottom of the trough for absorbing the excess ink.

Sub
A3
cont

15. A printing system, comprising:

- a web guide having
- a preprinting section which guides a substrate into the printing system, the preprinting section having a substantially flat surface over which the substrate moves, and including heating elements to condition the substrate ;
- 5 a postprinting section which maintains tension in the substrate as the substrate moves through the printing system, the postprinting section having a substantially convex curved surface over which the substrate moves, and including heating elements to heat the substrate; and
- 10 a printing section positioned between the preprinting section and the postprinting section, the printing section including a removable platen to provide a gap in the printing section to prevent excess ink which is deposited onto the substrate from accumulating underneath the substrate, the printing section including heating elements to heat the substrate and being connected to a vacuum source which generates a suction on the substrate.
- 15

16. A method of guiding a substrate through a printing system, comprising:

- guiding the substrate through a preprinting section of the printing system;
- 20 moving the substrate through a printing section of the printing system, and applying a vacuum to the substrate to minimize wrinkling of the substrate;
- and
- 25 applying a tension to the substrate as the substrate moves through the printing system.

17. The method of claim 16, further comprising heating the substrate to condition the substrate before printing on the substrate.

25 18. The method of claim 16, further comprising heating the substrate in the printing section to dry off solvents from ink deposited on the substrate.

Sub A31 count

19. The method of claim 16, further comprising heating the substrate after printing on the substrate.

20. The method of claim 16, prior to guiding, removing a platen in the printing section to provide a gap over which the substrate moves, the gap minimizing excess ink which is deposited on the substrate from accumulating underneath the substrate.

5

21. A method of guiding a substrate through a printing system, comprising:
guiding the substrate through a preprinting section of the printing system;
and
10 moving the substrate over a gap of a printing section of the printing system, the gap minimizing excess ink which is deposited on the substrate from accumulating underneath the substrate.

22. The method of claim 21, further comprising applying a tension to the substrate as the substrate moves through the printing system.

15 23. The method of claim 21, further comprising heating the substrate to condition the substrate before printing on the substrate.

24. The method of claim 21, further comprising heating the substrate in the printing section to dry off solvents from ink deposited on the substrate.

25. The method of claim 21, further comprising heating the substrate after printing 20 on the substrate.

add A31